Brushing and flossing effectively to improve your overall health

As seen in the November 2008 issue of *Indianapolis Woman* magazine



Back To Basics:
Are you brushing
correctly?

Cleft Lip and Palate:
One woman's amazing
transformation

Oral Cancer: Know the Signs

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Give Yourself a Reason to Smile

A healthy smile tells the world all about us — how we feel, how we look, how we care for ourselves and how healthy we are. A person who has bad breath and missing or decayed teeth, often associated with poor oral health, may feel ashamed and lack the confidence to excel at work or at school. Imagine not being able to chew your food or being in constant pain and not being able to concentrate on work or school. Poor oral health can negatively impact not only our physical health but also our social and emotional well-being.



Unfortunately, periodontal or gum disease is very common. Members of racial and ethnic minority groups experience a disproportionate level of oral health problems, such as gum disease. Those who suffer the worst oral health are people with low incomes, children and seniors in particular. Individuals who are medically compromised or who have disabilities are at greater risk for oral diseases, and in turn, oral diseases further jeopardize their health.

The good news is there are steps you can take to have a healthier mouth. Some things you can do to prevent gum disease: brush your teeth with fluoride toothpaste at least twice a day, floss every day, visit the dentist routinely for a checkup and professional teeth cleaning, eat a well-balanced diet and don't use tobacco products.

I hope that by reading this insert you will better understand the important role a healthy smile and good oral health play in ensuring a good quality of life. For most people, maintaining good oral health and preventing the problems associated with an unhealthy smile are easy, do not take much time, and are inexpensive. Prevention is the key to a healthy smile, so practice basic oral health habits every day, and make sure your children are adopting these habits as a way of life. And don't forget to smile!

Ldy Monroe

Judy Monroe, M.D. State Health Commissioner

The Health Connection

Taking a new view of the importance of dental health by Dr. Michael J. Kowolik, Associate Dean for Graduate Education,

Professor of Periodontology, Indiana University School of Dentistry



Believe it or not, dental care dates back to primitive times. Toothpicks and floss have been found in the teeth of prehistoric human beings. Innovations in oral health are available that

not only add to our health but can enhance our appearance. The connection between oral health and overall health is becoming a part of the discussion to promote healthy dental habits and regular visits to your dentist.

This is not entirely a new development. Until the last 10 to 15 years, it was the technical advances in dentistry that took center stage.

Nearly 100 years ago the prominent English

physician, John Hunter, was drummed out of a conference of the American Dental Association. He had accused the dental profession of not addressing the overall health of its patients and instead focusing on the mechanical aspects of the art. He was a man before his time.

The approach to medicine and dentistry always undergoes change. With an emphasis on "evidence-based" clinical practice, we have started to unravel many medical mysteries. One of these is whether infection or inflammation in the mouth can influence organs and tissues in other parts of the body.

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We've known for a long time that bacterial plaque on teeth causes gum disease, gingivitis and periodontal disease. More recently it is suggested these conditions may affect other areas of our health: coronary heart disease; pre-term, low birth weight babies; stroke; chest infections; diabetes; and even some cancers.

There are certainly biological mechanisms that could be responsible. Many studies on these connections have been conducted. Some experts feel the relationship between oral health and overall health is confirmed; others are more cautious. Until the results of research are more conclusive, there is no doubt that practicing good oral hygiene continues to be the best way to help maintain a healthy mouth. And, if it helps the rest of your body too, then it's a bonus.

Keep Your Winning Smile

Know oral health basics for all stages of life

Your smile is often the first thing people notice. To keep that winning smile, take time from your busy lifestyle to visit your dentist and develop healthier habits to maintain your oral health.

It goes beyond looks. The health of your mouth often reflects your body's overall health. Other diseases and health conditions, such as heart disease, osteoporosis, diabetes, pregnancy and birth can be linked to oral health.

Stay healthier; know these oral health basics. Then read the following pages to ensure you keep healthier teeth and gums, fresher breath — and a healthier you.

Baby bottle mouth (syndrome):

Decayed baby teeth caused by taking a nap or going to bed at night with a bottle of milk or juice. (Plain water is better for bedtime.)

Bleaching: A technique used to whiten stained teeth.

Bridge: A tooth replacement used when only a few teeth are missing.

Caries: Tooth decay. Another word for cavity.

Crown/cap: An artificial tooth covering made of porcelain or metal that protects decayed or damaged teeth.

Dentures: Artificial teeth on a model made to sit directly on the gums. Dentures can be complete or partial depending on how many teeth are missing.

Endodontics: A dental specialty that focuses on treating the nerves and roots of teeth.

Gingivitis: A type of gum disease that causes red and swollen gums that bleed easily. Gingivitis is caused by the buildup of plaque and food particles in the mouth.

Impacted tooth: A tooth that lies beneath the gum, under bone or soft tissue, usually under another tooth. Impacted teeth are not likely to grow out on their own.

Implant: Support for a bridge or denture. Implants are surgically placed into bone.

Inlay: A solid filling (usually gold) that covers a missing portion of a tooth.

Orthodontics: A dental specialty that focuses on straightening teeth or jaws by using braces or surgery.

Pedodontics: A branch of dentistry focused on treating children.

Periodontics: A dental specialty that treats the gums, tissue and bone surrounding teeth.



Periodontitis: A serious type of gum disease that can occur from untreated gingivitis.

Plaque: A substance that collects on the surface of teeth. Plaque contains bacteria that can lead to tooth decay if it is not removed by daily brushing and flossing.

Prosthodontics: A branch of dentistry focused on the replacement of missing teeth using bridges or dentures.

Root canal: The removal of the nerve tissue and blood vessels inside a tooth that have been damaged by injury or decay.

Tooth implant: Artificial tooth replacement for a lost tooth surgically placed into bone.

From Soda Pop to Mouth Guards

What do you really know? (Answers on Page 15)

You may no longer have your wisdom teeth, but you still can take this simple quiz to find out just how much you know about oral health. And to fill in the gaps of your knowledge, read the following articles on preventative care, dental procedures and dental disease — and become more oral health-wise.

ia be	d become more oral nearth wise.	
1.	You should replace your toothbrush once every six months. True False	
2.	Half of all cases of periodontal disease in the United States are associated with cigarette smoking. True False	
3.	You should talk to your dentist before using any teeth-whitening or bleaching procedures. True False	
4.	It is better to sip a soft drink slowly throughout the day rather than all at once. True False	
5 .	The element found in drinking water that helps protect and strengthen teeth is magnesium. True False	
6.	Chewing sugarless gum that contains xylitol will help protect your teeth from cavities. True False	
7.	You do not need to worry about your infant's oral health until their baby teeth come in. True False	
8.	A lack of folic acid during pregnancy is associated with cleft palate, the most common birth defect in the United States.	
	□ True □ False	
9.	It is important to wear a mouth guard while playing sports. True False	
10 .	It is normal for gums to bleed while brushing and flossing. □ True □ False	

Back to Basics

Are you getting them right?

by Rita Hope RDH, MS, LCSW, State Dental Hygienist, Indiana State Department of Health



Brushing

Chances are you can improve your technique. Americans brush their teeth an average of only 30 seconds — not nearly long enough time to use the proper technique. Brush your teeth in a consistent pattern each day, morning and night, to

improve your smile and prevent gum disease.

An effective way to brush

- > Hold the toothbrush in your right hand or left, if left-handed. Bristles should be pointed toward the ceiling. Top with a small dollop of toothpaste.
- > Begin in the right upper arch of your teeth in the back and move it back and forth on the chewing surface to the count of 7. Make sure you get the inner and outer surfaces. Repeat on the upper left side.
- > Next, turn the bristles toward the floor and begin scrubbing the lower left side chewing surfaces and end at the lower right chewing surfaces. This distributes the paste to all four quadrants of the mouth as well as scrubs the chewing surfaces, where most plaque lives.
- > Go back to the upper right molar teeth, cheek area, with bristles toward the ceiling in a 45-degree angle; roll the bristles down over gums and teeth 7 times, move the brush to the next set of teeth and repeat 7 times and so on.
- > As you move to the front of the mouth your hand and toothbrush handle changes direction, but always begin on the gums and end after brushing the tooth area to the count of 7. If you have heavy plaque, count to 10.
 - > Next, point bristles toward the floor and

drop down to begin the lower left gum area by the molars and roll up to the teeth. Always begin on the gums and end on the teeth. When you approach the front teeth, turn the brush lengthwise to reach more gum area and brush each tooth by itself to the count of 7.

- > Move to the upper left inside of the mouth, drop to the lower left side, moving to the center teeth and ending at the lower right molar area inside of the mouth. Finish by gently brushing the tongue, which harbors bacteria that may cause dental disease or bad breath.
- > Rolling the bristles down on the upper teeth and up on the lower teeth massages and firms the gum tissue, and helps reduce pocketing areas for plaque to hibernate. The "rolling" direction prevents abrasion, which tends to happen with sideways scrubbing.

Flossing

You only need to floss the teeth you want to keep. Flossing is key to getting rid of debris missed by the toothbrush that lurks between the teeth or at the backs of the last teeth.

Flossing cleans the teeth and makes the tooth surfaces slippery to prevent plaque attachment. Rinsing the mouth with water after eating or drinking also prevents plaque attachment but is not a substitute for flossing.

Floss daily. The best time of the day to floss is right after dinner. You may be too sleepy to brush and floss first thing in the morning or before going to bed, so save that time for the toothbrush alone.

Effectively flossing

> Follow the same pattern every day, beginning upper right to upper left and then



lower left to lower right. Finish by "wiping" the backside of the last molars in all four quadrants. Having a routine prevents missing an area.

- > Wrap middle fingers with 15 to 18 inches of floss, grasping the middle of the floss between your index fingers and thumbs and slide a clean section at each crevice, with one middle finger taking up the "used" portion.
- > Place the floss at an angle to the first crevice and slide gently between the teeth and "shoeshine" the sides of the teeth in the space leaning to the left tooth and then to the right tooth. Picture a "C" as you manipulate to the right and to the left.
- > Lasso the last tooth in each quadrant. Make a loop of floss and 'wipe' the molars' backsides. Never jam the floss into any crevice.

You may bleed at first but daily flossing firms the tissue and less bleeding will occur. If bleeding persists after a week, see your hygienist or the dentist for a diagnosis.

Once the routine is down, it takes less than 30 seconds to floss.

Bad breath

Bad breath or halitosis usually is caused by certain foods, such as garlic, but also may stem from medical problems like post nasal drip, diabetes, stomach disorders or poor oral hygiene. Find the culprit and take the steps to correct the problem.

The main idea is to reduce plaque or food particles caught between the teeth. Mouthwashes are great, but the effects are short lived. Sugarless gum or mints also are temporary fixes. Simply rinsing with water after eating can rid the mouth of potential odor-causing debris. Routine brushing and flossing should keep bad breath at bay.

If it continues to be a problem, talk to your dentist. He or she can help determine the causes and suggest proper treatment so you can have cleaner, fresher breath.



The Life of a Toothbrush

Three to four months is a normal lifespan for a toothbrush. It's time to change toothbrushes when the bristles fan out or after a bout with a cold or flu. Never share toothbrush holders with family members. After rinsing thoroughly, store your toothbrush in a separate area so the bristles have time to dry out.

The Truth About Whitening

Be careful about what you use to get that Hollywood smile

by Mariquita "Kit" M. Palanca-Beveridge, DDS, Preferred Dental Care, P.C.



t is the hottest craze in town. People want to have that attractive "Hollywood" smile. The good news is there are various ways available to get those brilliant white teeth. The

bad news? There are so many products available that claim to whiten teeth that consumers don't know what to believe.

Google the words "teeth" and "whitening," and you'll get more than 5 million Web sites. Unfortunately, consumers often proceed with treatment without first consulting a dentist. They rely merely on marketing information and the latest word on the street.

There are many good over-the-counter whiteners, but there also are "questionable" ones. Products with the ADA seal of approval are considered safer since they have been tested.

In-office whiteners utilize more effective and reliable prescription-strength medication. However, be careful in selecting which material to use and, more importantly, when it would be advisable to use a whitening agent safely.

Studies show that truly effective whiteners have side effects, namely tooth sensitivity, as well as gum tissue chemical burns, according to the *Journal of the American Dental Association*. Using effective whitening agents on teeth with pre-existing damage may result in more serious problems to the teeth and gums. This can require more costly and time-consuming procedures to correct. Your dentist can advise as to which whitening agent would be most appropriate for your situation and expectations.

Before deciding to whiten your teeth, undergo a thorough dental examination. People who have damaged teeth may not have pain or sensitivity. This can mislead people to believe they have healthy mouths. It is important to have a dentist diagnose any pre-existing problems. Take appropriate precautions to avoid complications prior to whitening teeth.

So do yourself a favor and see a dentist first before whitening. Keep your smile healthy!

Dental X-rays

Vital tools to maintain your oral health

by Gail F. Williamson, RDH, MS, Professor of Dental Diagnostic Sciences, Department of Oral Pathology, Medicine and Radiology, Indiana University School of Dentistry

Women often express concerns about radiation from dental X-rays, particularly during pregnancy. The amount of exposure is minimal, especially with the advent of digital imaging. Digital X-rays significantly reduce the amount of exposure needed to capture the image. An added bonus is that the image is displayed on a monitor for you and your dentist to discuss.

The dentist may provide lead shields for extra protection during X-ray procedures. Lead shields are strongly recommended for children, women of childbearing age and pregnant women.

X-rays are like picture illustrations that your dentist uses to determine problems and decide proper treatment. They also are a resource that can help you understand necessary dental care.

Dental X-rays, or radiographs, are an essential tool used to evaluate your teeth and supporting structures. Dentists depend on X-rays to provide information about the underlying tissues in the mouth and to reveal conditions that may be suspected but not seen clinically.

X-rays are used to evaluate more common diseases, such as tooth abscesses, decay and gum disease. Infection of the nerve may

result in a tooth abscess, which is painful and usually requires root canal treatment. Decay between the teeth can be viewed in dental X-rays to determine the extent of decay and involvement of the nerve for proper treatment. (See figure 1.)



Gail F. Williamson

When evaluating gum or periodontal disease, X-rays allow evaluation of the amount and quality of the bone present, reveal the status of supporting structures and view tartar deposits. Periodontal disease has been associated with a variety of health conditions such as cardiovascular disease, preterm births and diabetes. Early diagnosis and treatment is important to both your dental health and your overall health.

There are many other situations in which X-rays are necessary. Root curvature or other conditions such as missing, extra or impacted teeth are important findings that affect treatment. (See figure 2.)

X-rays provide important information for proper diagnosis and treatment. Without X-rays, the dentist would be working blind and might not be able to provide proper care.

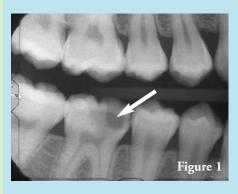


Figure 1: This bitewing X-ray was taken to view decay, which is the dark area identified by the arrow. The first molar tooth has a very large cavity, which extends to the nerve of the tooth.

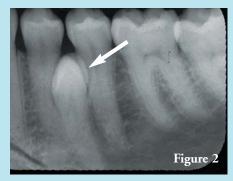


Figure 2: Some people develop extra teeth. This X-ray shows two extra premolar or biscuspid teeth impacted between the normal premolar teeth.



You May Be Surprised

Try these food and drink options for healthier smiles and bodies

by Hannah Maxey, R.D.H. and Tonya Stewart, DDS, Director, Dental Services, Marion County Health Department

Want to have a healthier smile and help prevent certain health conditions, such as osteoporosis, heart disease and diabetes? Eat a healthy, balanced diet, and drink water along with some milk.

A healthly diet is low in sugar, fats and salt, and includes plenty of fresh fruits, vegetables and lean meats. Along with good oral hygiene practices, a healthful diet helps to prevent tooth decay, gum disease, tooth loss and systemic conditions.

Dairy products, such as milk, yogurt and cheese are beneficial to healthy smiles and bodies because they provide calcium. Calcium aids in the development of teeth and bones during childhood and strengthens bones, such as our jawbones, during adult years. Maintaining a daily intake of calcium — three servings per day — helps in preventing periodontal disease as well as other diseases such as osteoporosis.

Be aware that diets high in sugar, sodium and fats can lead to poor smiles and health problems. In addition to causing cavities in teeth, these diets often lack necessary nutrients for good health. Increased risk of periodontal disease is possible because the body is not as effective at fighting infections.

Periodontal disease also may be a contributing factor in heart disease and diabetes. The bacteria from gum infections can get into the blood stream, flow to and affect the heart. Gum infections may exacerbate diabetes because infections can affect the stability of blood sugar levels. Uncontrolled diabetes

can hinder the ability to heal, thus exacerbating the periodontal disease and creating a vicious cycle.

Orally, beneficial beverages include water and milk. Daily intake of water — eight or more glasses per day for women — helps reduce cavities and gum disease by removing food, sugars and dental plaque from teeth, gums, tongues and cheeks.

Though milk and fruit juices are more healthful than sodas, many people assume milk and natural fruit juices don't cause cavities. Actually, all drinks that contain sugar tend to produce plaque, whether it is refined sugar from sodas and juices or naturally occurring sugars found in fruit juices and milk

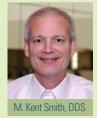
Early childhood caries, ECC or "baby bottle decay," almost always is a result of constantly feeding from or sleeping with a bottle filled with milk or juice. In ECC, children suffer with rampant cavities. To alleviate EEC, babies should be given bottles of water between meals and at bedtime instead of milk or juice. Sodas can cause rampant decay too, typically along the gum line, but it can be beneficial to drink water following sodas to help remove any remaining sugars.

Healthy and cavity-free smiles are promoted and maintained by drinking plenty of water and, in moderation, enjoying milk, fruit juices and sodas. Also, maintain a healthy diet. It adds to the benefits of good oral health, you'll feel better — and your smile and body will thank you.

Mouth Guards

The device provides a cushion of protection between you and injury by M. Kent Smith, DDS, R.Ph., Director of Oral Health, Indiana State Department of Health

emember the old saying "An ounce of prevention is worth a pound of cure"? This holds true with preventing mouth injury from physical



activity. Imagine what it would be like if you lost one or two front teeth. It would not only be expensive to repair and painful, but eating, talking, smiling and your self-esteem all could be negatively affected.

Dental injuries due to participating in sports and other activities can be minimized by the use of a properly fitted mouth guard or mouth protector. You may have seen these in contact sports such as football, boxing or hockey. Mouth guards help cushion blows that might cause injuries to the lips, tongue, face, jaw or teeth.

There are three main types of mouth guards:

- > The ready-made mouth guard
- > The mouth-formed or boil-and-bite mouth guard
 - > The custom-made mouth guard

The first two are available at many sporting good stores, and the custom-made mouth guard is available from your dentist. All of these devices provide protection, but they vary in comfort and cost.

The most effective mouth guard is tearresistant, resilient and comfortable. It should be easy to clean, durable and fit properly. A mouth guard that does not fit properly can cause irritation to the gums or other areas of the mouth. A properly fitted mouth guard will not interfere with your speech or breathing.

If you or your children participate in any recreational activities that might pose a risk of injury to the mouth, consider wearing a mouth guard. See your dentist for advice on the type of mouth guard that is best for you. Your smile says a lot about you, so do everything you can to protect it!



The Gender Effect

Tobacco negatively impacts women more so than men

by Laura Romito, DDS, MS, Clinical Associate Professor, Director, Nicotine Program Department of Oral Biology, Indiana University School of Dentistry

When it comes to smoking, women and men are not created equal. Osteoporosis is more common in women than in men, and tobacco contributes to the development of osteoporosis by decreasing bone density and reducing calcium absorption.

Not surprisingly, the alveolar bone supporting the teeth can be affected. Tobacco smoke also has harmful effects on the gums, increasing the risk for periodontal disease and tooth loss.

One of the most tragic consequences of tobacco use is the development of cancer in the gums, tongue, lips and mouth, but the initial signs may appear harmless. Oral cancer signs and symptoms include:

- > a painless swelling
- > hardness or lump in the mouth or neck
- > red or white patches in the mouth
- > bleeding
- > numbness

To minimize the risk of developing oral cancer, women should take steps now to quit using all forms of tobacco. Women currently using tobacco should perform regular oral self-exams at home. After brushing, use a mirror and examine your:

Head and neck: Look for any lumps or swellings that are only on one side of your face.

Face: Look for any color or size changes, sores, moles or growths.

Neck: Feel along the sides and front of your neck to identify tenderness or lumps.

Lips: Inspect the inside of your lips for sores or color changes. Use your thumb and Laura Romito, DDS forefinger to feel lips for changes in texture.



Cheeks: Look for color changes. Feel each cheek for lumps or tenderness.

Roof of the mouth: With head tilted back and mouth open, look for lumps or unusual coloration.

Floor of the mouth and tongue:

Stick out your tongue and look at the top surface for changes in color or texture. Move the tongue left, right and up to examine all tongue surfaces and the floor of your mouth.

Women who currently use tobacco or have in the past should visit their dentist regularly so problems can be detected early and treated promptly.

In order to have a healthy mouth and a healthy body, the best decision is to abstain from tobacco. Fortunately, there are many resources available for smoking cessation. If you smoke, talk to your health care provider or dentist about cessation programs in your area or call (800) QUIT-NOW to get the help you need.

Osteoporosis

by Gregory E. Phillips, DDS, MSD, Diplomate, American Board of Periodontology; Fellow, International Team for Implantology

steoporosis, or thinning of the bones, is a condition that affects both genders but is more common in women. It has been estimated that more



Gregory E. Phillips, DDS

than 44 million people in the United States older than 50 are at risk for fractures due to osteoporosis and low bone mass. It also increases the chances for periodontal, or gum disease.

If you have osteoporosis, your doctor may have prescribed a bisphosphonate medication. The use of bisphosphonate medications has been linked to "osteonecrosis of the jaw" or ONJ, which literally means dead bone. Following an oral surgical procedure, such as a tooth extraction, the area does not heal and a portion of the jawbone is exposed, prone to infection and often painful (see figure 1).

The vast majority of cases of ONJ have occurred in patients who have received the high potency bisphosphonate medications for the treatment of bone cancer. However, ONJ has also been reported in patients that have taken the medication for osteoporosis.

Not everyone who takes an oral bisphosphonate and needs a tooth removed develop ONJ. To help prevent periodontal disease and ONJ, If you have taken bisphosphonate medications, schedule a dental evaluation as soon as possible to determine the overall health of your teeth and gums.

If bisphosphonate medication is prescribed as part of your osteoporosis therapy, any dental treatment can be safely performed during the first three years of drug therapy when the risk of developing ONJ is minimal. Once the teeth and gums are healthy, simple, routine dental care can maintain your oral health without risk of developing ONJ.





It's Never Too Early

The time is now to care for your children's oral health

by Caroline W. Derrow, DDS, Pediatric Dentist, Auburn Pediatric Dentistry

Dentists strive to make each child's first dental visit a good and memorable one. With your help, your children can develop a lifelong interest in maintaining their oral health.

The ABCs of brushing

Good oral hygiene starts at birth. Wipe the gums after every feeding. Wrap a washcloth or cotton gauze around your index finger and wipe off the gums. Use the same wiping pattern each time to ensure consistency. Eventually, your child will open after every feeding expecting a cleaning, so that once he or she is older, brushing after every meal will come more naturally.

Brush once the first teeth erupt — a soft infant toothbrush is recommended with non-fluoride toothpaste. Use a very small amount of toothpaste. Apply it across the width instead of the length of the bristles.

Change your child's toothpaste once he or she is old enough to spit out the toothpaste and not swallow it. Toothpaste containing fluoride is then recommended.

Baby teeth

Primary teeth, or baby teeth, are important for proper chewing and eating. They also provide space for permanent teeth, guiding them into the correct position, and permit normal development of the jaws and muscles. Primary teeth also affect the development of speech and add to an attractive appearance.

Though the front four teeth last until age 6 or 7, the back teeth — cuspids and molars — aren't replaced until age 11 to 13. Neglected cavities frequently lead to problems, which

affect the developing permanent teeth. Early care is essential for a lifetime of good dental health for your child.

Going to the dentist



Caroline W. Derrow, DDS

Your child's first visit should be made by at least age 1 as recommended by the American Academy of Pediatric Dentistry, the American Dental Association and the American Academy of Pediatrics. This visit provides a vital opportunity to begin preventative oral health habits and reduce the risk of getting cavities. It's important to establish a dental home. Your child then will be treated in a familiar place with all the needed medical forms on record for routine care, or in case of an emergency.

With a positive attitude, you can make the first visit to the dentist enjoyable. Talk to your child about how the dentist is there to help and answer any questions. Avoid using words that might cause unnecessary fear, such as needle, pull, drill or hurt. Pediatric dental offices specialize in making your child's oral health experience effective and comfortable.

Your child can sit in your lap for the first visit. Even though all of the teeth may not be present, it's important to assess the eruption of the teeth, development of the jaw, nutrition and fluoride.

The visit should include a comprehensive exam, teeth cleaning and fluoride application, and digital X-rays depending on need. You may discuss topics, such as finger sucking and grinding. A tour of the office can help your child feel at home during routine visits.

Cleft Lip and Palate

Major surgical advancements are promising in correcting birth defects

by Ronald R. Hathaway, DDS, Director, Craniofacial Center Peyton Manning Children's Hospital at St. Vincent

left lip and palate are the most common birth defects in the United States. These defects affect the upper lip and roof of the mouth. Tissue that



Ronald Hathaway, DDS

forms the roof of the mouth and upper lip don't join before birth and result in one or both of these abnormalities. The problem can range from a small notch in the lip to a large gap or groove that runs into the roof of the mouth and nose.

This can affect the way a child's face looks and can lead to problems with eating and talking, ear infections and other health issues. All infants, children and adults with facial growth problems should receive high quality medical and dental care from routine orthodontics to craniofacial surgery as appropriate.

Treatment usually involves surgery to close the lip and palate. Doctors often do this surgery in several stages. The first surgery typically is done during the baby's first year. The results of such treatment include improved facial appearance, better speech and hearing, proper chewing and swallowing function, better oral hygiene and improved self esteem.

Fortunately, with medical and dental advances, outcomes for children born with cleft lip and palate and others with facial birth problems are now quite promising.

See page 13 for amazing before and after photos of one Hoosier woman born with a cleft lip and palate who is now proud to show off her smile.

Harmful Habits?

Deciding when to put an end to thumb sucking and pacifier use

by Judith R. Chin, DDS, MS, Associate Professor, Department of Pediatric Dentistry, Indiana University School of Dentistry

As a mother, you may be worried about your child's thumb, finger or pacifier sucking habit and wonder if it is harmful.

Rest assured it is normal for infants and young children to put things in their mouths and suck on things. It may make your child feel safe and happy. It also may help soothe your child in stressful situations.

Usually, children stop these habits on their own when they are 2 to 4 years old. Children need to stop using a pacifier or sucking their thumb before the adult front teeth come in, which usually happens around age 6. Stopping



by age 4 will help to prevent future problems with the correct growth of the jaws, mouth and teeth.

Pacifiers can affect the teeth in the same

way as sucking fingers and thumbs. However, it is often an easier habit to break. An individualized approach for each child is needed when evaluating his or her particular habits and stage of development.

Tips to break the habit:

- > Children often suck their thumbs or rely on a pacifier when needing comfort or feeling insecure or tired.

 When appropriate, some of these needs can be addressed in other ways.
- > Notice when and where thumb sucking or pacifier use occurs. Divert your child's attention by offering an alternative.
- > For an older child, involve him or her in choosing the method of stopping.
- > For a pacifier consider one of these nethods:
 - Make it a special treat by limiting

pacifiers for bedtime use only.

• Cut a small hole in the top of the pacifier. This creates a different feel that most children do not like. Make sure

that your child does not bite off pieces though as it may cause a choking hazard.

● Talk to your child about stopping and set a date. You can make it a positive thing by having the "Binky Fairy" come get the pacifier to give to a new baby and leave some "Big Kid" toys for your

growing toddler.

- > For a thumb or finger habit you can try several methods:
 - Place a stretchable glove or sock on the hand
 - Cover the finger with an adhesive bandage.

Talk to your pediatrician and dentist about this issue and other concerns. They may offer other creative ideas for breaking the habit when the time is right.

Your Questions Answered

Q-and-A with Joan E. Kowolik, BDS, LDS, RCS, Director, Pre-doctoral Pediatric Dentistry, Indiana University School of Dentistry

Q: How can my children and I avoid getting cavities? Is it possible?

A: It doesn't take an advanced degree or training to prevent cavities, just regular and sustained oral health home care.

Q: What exactly is good oral health home care?

A: Brush and floss your teeth regularly, each morning and night before bed, and limit sugary foods. The key is consistently doing these things in an effective manner.

Q: When should I begin tooth brushing?

A: The best time to start is when you are just a baby. Cleaning the mouth should begin when the baby is very young, even before any teeth have erupted. Every time the baby is fed the mouth should be cleaned

using a soft cloth to begin with and then a soft baby toothbrush once the baby can sit with support. Keep in mind that the mouth needs to be cleaned even after nursing on breast milk.

Q: Where does the baby get the germs that cause cavities?

A: We all have them so they generally come from adult caregivers: Mom, Dad, Grandma, the sitter, anyone who feeds or kisses the baby. That is why it is important for the adults to have healthy mouths and no cavities.

Q: Should I put my baby to bed with a bottle?

A: Giving your child a bottle in bed is advised only if the bottle has water in it. Sipping milk all the time may cause cavities to form because it contains natural sugars. To protect your children's oral health, it is

also important to never put anything but milk or water in the bottle.

Q: Do I have to forbid all candy?

Joan E. Kowolik, BDS

la pop and

A: Absolutely not! Candy, soda pop and sweet foods are a part of life and should not be banned. Sugary foods should only be consumed in moderation and at times when the mouth can be cleaned. Sweet things eaten only as part of or after a meal have little bad effect if the teeth are brushed soon after. It is also better for your child's health if they do not eat sugary foods between meals. Eating candy and drinking pop in the car is much more damaging. As a parent, you should set the example. It is easier to set up good habits when your child is young.

Disparities in Oral Health

Oral health is essential to everyone's general health and well-being. Unfortunately, significant oral health disparities persist in the United States largely due to complicated cultural, economic and social processes that ultimately affect access to effective dental health care.

Minorities experience numerous barriers to preventive dental care including lack of insurance, lack of access including an unmet need for mentors and promotion of preventative care, discrimination, language barriers and lack of culturally sensitive dental care.

The consequences of poor oral health and the lack of or inadequate dental care often result in pain and infection, missed work and school, speech and eating dysfunction, distraction from normal lifestyles, risks to overall health and worsening of medical conditions.

Some of the more alarming disparities include:

- > In Indiana, African Americans and Hispanics were more likely to report tooth loss compared to Whites.
- > Hispanics and African Americans have experienced a higher incidence of tooth decay, periodontal disease and bone loss than Whites.
- > Hispanic children are 2.5 times more likely and African-American children are 1.5 times more likely to have tooth decay than are White children.
- > A larger portion of elderly African Americans have periodontal disease compared to elders of all racial populations regardless of social-economic status.
- > African-American men have higher rates of oral cancer and poorer survival rates than other men.
- > African Americans with oral cancer are less likely to survive five years after the disease is detected compared to Whites.
 - > Fewer Hispanics have dental insurance than African Americans and Whites.

The Indiana Minority Health Coalition is a nonprofit organization whose vision is to ensure that no ethnic/minority child, adolescent or adult will experience preventable health conditions at any greater rate than non-minorities. We are constantly challenged to find ways to assist with the elimination of racial and ethnic disparities. We utilize our broad-based network of affiliate agencies across the state of Indiana to assist with this task. Collectively, we hope to make a difference.

You can encourage others to get the preventative dental care and treatment they need by telling them about the health care resources on page 16. Some community resources for reduced cost dental care include HealthNet Dental, Indiana University School of Dentistry and Marion County Health Department.



Nancy Jewell President and CEO

Indiana Minority Health Coalition



Going For It

Barbara Fuentes Smith realizes her dream to become a dentist

by Deb Wezensky

love of science and an orthodontist's genuine and professional care inspired Barbara Fuentes Smith to become a dentist with a private practice. "I went into dentistry to help people. If it takes me an hour to do the right thing, it takes me an hour," she says.



Barbara Fuentes Smith, DD

Fuentes Smith says she's also committed to educating her patients so their overall dental health improves.

From a traditional home in Mexico City, her parents had not anticipated her desire to be career oriented as opposed to a homemaker. Still, her father encouraged her to be the best at whatever she wanted to be.

Her father taught her to treat others the way she wanted to be treated and always to strive to do the right thing. Growing up, her orthodontist modeled a wonderful patientdoctor relationship. "He always treated me as if I was special, and he helped me get a much nicer smile," she says. It was a precious gift Fuentes Smith now passes on to her patients.

She worked hard earning her dental degree in Mexico at the Universidad Intercontinental. A dentist in her native country for six years, she turned her sights on continuing her education with a master's degree in the United States.

The road to success was challenging. "You really have to know what you want and you really have to work hard," she says. Before being admitted to college in the United States, she had to pass the Test of English as a Foreign Language exam (TOEFL). During English as a Second Language classes, she met John Smith, her husband of 20 years.

Her decision to return to school was a wise





Daniel S. Cain

Did You Know?

Community water fluoridation by Daniel S. Cain, BS. REHS. Director of Water Fluoridation, ISDH

- > Fluoride is a natural element found in the environment that can reduce the risk of tooth decay.
- > The community water fluoridation program began more than 60 years ago in Grand Rapids, Michigan.
- > Community water fluoridation has been named by the Centers for Disease Control and Prevention as one of the 10 great public health achievements of the 20th century.
 - > Over 4.3 million Hoosiers drink opti-

one. However, moving away from her tight-knit family — to an entirely different culture in Indiana — and attending classes as a new mother took courage and persistence, along with her husband's unwavering support.

Fuentes Smith balanced baby, books and being a wife with patience and flexibility. Time was an issue. Money was tight. And not having English as her native language added another demanding facet to daily life.

Being culturally different set her apart. At times, she felt she didn't belong. Her different standing in her coursework also kept her from being more integrated with her fellow students. That experience and her desire to help others, motivates Fuentes Smith to also teach at the Indiana University School of Dentistry.

Some of her minority students also experience a sense of "standing alone," she adds. "On the other hand, being a minority student today may actually help you to be accepted in schools, as well as alternative scholarship and loan opportunities. Here there is so much opportunity. I went to school on loans."

There are some barriers that may keep her fellow Latinos from getting proper dental care. Some Hispanics may not be at ease with English-speaking health care providers.

There often is a lack of education about the value of routine preventative care. The result is an association of dental care with pain and unpleasantness. Lack of dental insurance coverage often means care is not affordable.

The goal of some minority dental students is to go back and improve the dental health in their communities by bridging cultural gaps.

"If you are in the chemistry lab and you like it ... then college classes in biochemistry, biology and math will be interesting," an aptitude Fuentes Smith says is very important for dental school. "You also need to like to work with your hands, be ethical and have good people skills. You have to like to help people," she adds. "And you can not stop learning new techniques, materials and equipment."

mally fluoridated water. The Centers for Disease Control and Prevention recognizes Indiana for providing 95 percent of the total public water supply population with fluoridated water.

> Indiana has 89 community public water systems that serve about 328,000 Hoosiers. The systems contain naturally occurring fluoride at levels recommended by the CDC. ●



Diversity in Dentistry

Explore opportunities to positively impact others

by Traci Adams-Wilson, Coordinator of Diversity Support Services, Indiana University School of Dentistry

Looking for a career in a people-oriented workplace that provides a valuable service to others? Your goals may be realized in the dental field.

"Dentistry provides flexibility, lots of opportunities and variety," says Dr. LaQuia Walker, who chose dentistry as a career. "It's great if you want a family. Each day is different, and you are not tied to a pager."

The dental industry is rapidly growing with a need for dentists, orthodontists and professional dental support staff. There is a great need for more dental practitioners in Indiana. In many places, dentists are retiring faster than new practitioners can be trained.

There is an even greater need for underrepresented minority dentists, defined as Black/African American, Latino/Hispanic and American Indian by the American Dental Education Association.

Cristina Lara, a fourth-year dental Latina student at Indiana University School of Dentistry says she went into the field "because the country is becoming more diverse, and people feel more comfortable going to a health care practitioner who shares a common culture."

Her future plans include having a practice in the Philadelphia area where she will be able to provide dental services to members of her community.

Lara suggests shadowing a dentist in your community if you are interested in dentistry. She also advises high school students to take AP courses in the sciences and join science clubs to begin building the foundation necessary for the development of a competitive application when the time comes to apply for dental school.

Traci Adams-Wilson

The IU School of Dentistry in Indianapolis is actively recruiting students to fill the growing needs for dental professionals.

The Urban Pre Dental Club has been created with specific activities geared toward minority students. Each month, members have the opportunity to participate in dental-related hands-on activities. Personal career development advice is provided through discussions with dental practitioners, participation in mock interviews, personal statement writing assistance and other application-related activities. Students in the club also have the opportunity to network with other dental students, faculty and staff, as well as future classmates and colleagues.

This year the IU School of Dentistry and the Metropolitan Indianapolis-Central Indiana Area Health Education Center launched Dental Summer Institute: Indianapolis, a weeklong experience developed for high school and college students interested in exploring dentistry. Interested students from three states experienced dental tool use, chairside observations with real patients and gained a sense of what dental school is actually like.

Interested in exploring a career in dentistry? For more information, contact Traci Adams-Wilson at tadams@iupui.edu or log on www.iusd.iupui.edu.

For more information, log on to the American Dental Education Association's Web site at www.adea.org.



Dental Implants

For a smile that looks and feels natural

by Denise Flanagan, DDS, Oral and Maxillofacial Surgeon



Denise Flanagan, DDS

Have you lost at least one permanent tooth to an accident? Experienced gum disease, a failed root canal or tooth decay? You are not alone. Sixty-nine percent of adults ages

35 to 44 share some of these same oral health issues. There are solutions to improve your oral health.

There are plenty of reasons to replace a missing tooth. A missing tooth can affect your bite, speech and eating choices. As you rely more on your remaining teeth, you increase the chance they will wear out prematurely or be damaged or lost. There is also a risk of extra pressure on and discomfort in the jaw joints due to the changing relationship of the teeth.

Twenty years ago, these patients would have had no alternative but to get a fixed bridge or removable denture to restore their ability to eat, speak clearly and smile. However, fixed bridges and removable dentures are not the perfect solution and often bring with them a number of other problems. The good news is that there is another solution — implants.

More like your natural teeth

A natural tooth consists of a root and a crown. If you compare natural teeth to implant supported replacement teeth, you'll see they have the same basic parts. Both have a crown, the visible part used to chew food. Both have a root that holds the tooth securely under the gum and is anchored into the jaw. The difference is that the implant is made of titanium — the same well-accepted material used by surgeons for artificial joints.

The process

A team approach that involves you, the patient, a restorative dentist and an oral and maxillofacial surgeon is critical when getting dental implants.

First, the surgeon surgically places the implant in the jaw with the top of the implant slightly above the tops of the bone. A screw is inserted into the implant to protect it and keep the tissue from growing over the implant. This procedure, as well as the recovery, is similar to or easier than the tooth extraction process.

Time is allowed for bone to heal and grow around the dental implant. During the second step, a support post, or abutment, is placed on the implant. In the final step, the dentist makes a custom artificial tooth, called a "dental crown," of a size, shape, color and fit that will blend with the other teeth. Once completed, the crown is attached to the implant post. If all of your teeth are missing, a variety of treatment options are available to support the replacement teeth.

Good candidates for implants are those in good health and with healthy gums and adequate bone to support an implant. If you think implants might be right for you, schedule a consultation with an oral and maxillofacial surgeon who can perform an exam and determine if you are a good candidate for dental implants.

Medications and Your Mouth

Some may adversely affect oral health by Amy Sutton Peak, PharmD, Director of Drug Information Services, **Butler University**

any of us take one kind of medicine another to treat a health condition. Unfortunately, some medications that treat one problem may actually cause another.



Amy Sutton Peak, PharmD

A common oral side effect of medications is dry mouth, which can be caused by more than 500 medications. Persistent dry mouth may be linked to cavities and infections and should not be ignored. Medications causing dry mouth include drugs for overactive bladder, allergies, Parkinson's disease, and sleep aids and antidepressants.

Though less common, some medications cause gum overgrowth. This adverse effect often is associated with three drugs: phenytoin, used to treat seizures; cyclosporine, often used in transplant patients; and nifedipine, typically used for blood pressure or heart conditions. Those with gum overgrowth need to work with their dentist and the physician prescribing the medication to determine treatment.

Some medications can cause discoloration of the teeth or mouth. Certain antibiotics are known for causing teeth discoloration in young children or pregnant women. This permanent discoloration typically is not improved by bleaching. Anti-malarial agents and other drugs may cause discoloration. Unlike the permanent teeth discoloration seen with tetracycline, these tongue discolorations often disappear shortly after stopping the medication.

Share these side effects with your dentist and health care provider so the most appropriate plan of treatment can be followed. This helps ensure a healthy mouth and a healthy body.





Left: Tooth discoloration caused by tetracycline use when the patient was 3 years old. Right: Gingival hyperplasia (gum overgrowth) caused by phenytoin.

One Step at a Time

Romesha Thomas faces the challenges of a cleft palate and lip

by Deb Wezensky

The birth of a new baby is often met with anticipation, joy and maybe even a little fear. This was indeed true of Romesha Thomas' birth. Her mother, Rita, initially agonized over the challenges facing her newborn because she was born with a cleft palate and cleft lip.

But with the help and support of her own mother and maternal grandparents, Romesha always got the extra attention and continued expert medical care she required. From the moment she cried from hunger, Romesha and her mom shared a special bond brought about by facing adversity together — and overcoming it.

Romesha's cleft lip and palate meant she had difficulty drinking from a traditional bottle. The opening into her mouth from her nose caused a leak of air that prevented effective suction. To be sure her baby received the right amount of nourishment, Rita fed her with a specially designed bottle and nipple that allowed milk to flow more freely.

Initially, Romesha was fitted with a prosthetic device called an obturator made to fit the roof of her mouth to cover the gap during the first months of life. This procedure helped her to feed by preventing the milk from coming out through the open nasal passage. The lip was closed surgically at 3 months and the roof, or palate, of her mouth was surgically closed at 14 months.

Dr. A. Michael Sadove, a craniofacial plastic surgeon with the cleft palate program of the Peyton Manning Children's Hospital, saw Romesha for these early procedures. Over the years, Romesha's family made the trek from Fort Wayne to Indianapolis to confer with Dr. Ronald Hathaway, a craniofacial orthodontist and director of the Craniofacial Center, Peyton Manning Children's Hospital at St. Vincent.

Hathaway performed several procedures to modify her facial and dental structures as she matured. Special medical care was needed as her mouth, teeth and jaw developed over time. Romesha found it helpful when Hathaway counseled her to be "patient, and remember that, step by step, everything will





Surgeries and orthodontic treatments transformed the appearance of Romesha Thomas, who was born with a cleft palate and lip.

just fall into place — things will go better," she recalls. "Dr. Hathaway has done an amazing job in always keeping me positive."

In addition to her surgeries, Romesha went to speech therapy in elementary school to help her pronounce the "s" sound properly. "I remember I did really well in class," she reflects. It is through a team of health care professionals that her health and appearance have been transformed over time.

Final steps in the late teenage years included a surgical advancement of her top jaw by Dr. Jeff Buttrum, an oral and maxillofacial surgeon of the same craniofacial team and a final lip revision again by Sadove. After her most recent surgeries, Romesha is a quietly confident, attractive young woman who appreciates the quality of care she received.

"Today I have straighter teeth, my bottom jaw is more aligned with my top jaw so that my teeth fit better, and the way my lips look makes me very happy," she says. "I've been given a totally whole new look. Since I've had braces, my smile has changed ... I feel more confident."

Because of her experiences, she is now a self-assured 18-year-old woman who truly knows the value of family and friends. "My mom's best friend and Grandma were here in Indy during my last surgery. They helped out as much as they could," she says.

Romesha advises others faced with physical adversities to "remember you are not different from anyone else. Just because I had a cleft palate and lip didn't mean I couldn't feel confident about myself. We are all beautiful people."

Crowns

New technology can make restoration more convenient

by William C. Tellman, DDS, Castleton Cosmetic and Family Dentistry

dvances in the field of dentistry have made some dental repairs, such as crowns, less time-consuming and more aesthetically appealing.



William Tellman, D

A crown or cap is an artificial covering placed

over existing teeth that need to be repaired.

Teeth may need crowns as a result of fractures, cracks, large restorations and root canal treatment to correct the bite, or to make teeth look more natural.

Crowns are made with a variety of durable dental materials. They usually contain some type of metal, such as gold, silver or copper. Sometimes they are made of porcelain or a combination of porcelain and metal.

A crown restores a tooth to its original shape and improves its strength and appearance. Recent improvements in dental materials allow dentists to place porcelain crowns that are functional, natural-looking and cosmetically appealing.

Porcelain crowns are used primarily for restoring teeth toward the front of the mouth, due to their ability to match the looks of natural teeth. Gold crowns usually are placed only on the back teeth. They are potentially the strongest type of crown. They are placed in areas of the mouth where the most chewing takes place and are very durable.

Among the most impressive technological advances in the past few years is the CAD/CAM technology, or computer aided design/manufacturing technology. It allows a dentist to custom-create ceramic restorations at the rate of about one hour per tooth. Multiple restorations that once required weeks can be completed in a single office visit.

Using a digital impression of your teeth, the technology allows dental experts to design and create a restoration that matches the exact shade of your surrounding teeth.

By the time you leave the dental office, your new restorations will be permanently bonded into place, giving you the confidence only a flawless smile can bring.

Oral Cancer

Keep this silent killer quiet — reduce your risks

by Thomas McLellan, DDS, Director of Professional Services at Delta Dental of Michigan, Ohio, Tennessee, Illinois and Indiana

Oral cancer isn't something that comes to mind when people name common types of cancer. Yet, according to the Oral Cancer Foundation, about 34,000 Americans are diagnosed with oral cancer, and more than 8,000 die annually.

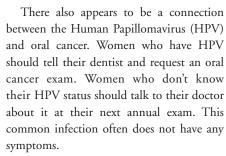
There also is a growing trend of women getting oral cancer. Several decades ago, about one woman would get oral cancer for every 10 men who got it. Today, it's one woman for every two men, according to the U.S. Centers for Disease Control and Prevention. The five-year survival rate is 57 percent and has not gotten better in more than 40 years.

Those who have oral cancer can have a poor quality of life due to damage caused to their face and neck. The cancer and the damage it causes can affect how people speak, eat and breathe.

Making more people aware of the disease can help with early detection, which is the key to boosting the survival rate to as high as 81 percent.

Using alcohol, tobacco or smokeless tobacco really increases the danger of getting oral cancer. However, more than 25 percent of all oral cancer occurs in people who drink

infrequently and do not smoke. Recent studies have dentists and doctors worried because they show there is a growing risk of oral cancer in women, including those who don't drink or smoke.



There is some good news. Advances in science and technology, such as the new OralCDx BrushTestTM, are used to spot oral cancer in its earliest stages or when cells appear abnormal but are not yet cancerous. With earlier detection, dentists can provide the care to their patients to fight oral cancer before it has a chance to kill.

For more information about oral cancer, log on www.deltadentalin.com.

Bleeding Gums

The problem may be "just the tip of the iceberg"

by Burton Largura, DDS, MSD, Peridontist, Indiana Health Centers-Kokomo

ant to keep your teeth healthy and avoid the need to be fitted for dentures or implants? Be proactive by taking care of your mouth, teeth and gums. Brushing and flossing twice daily can help keep your mouth disease free.

Periodontal disease is the No. 1 cause of tooth loss in adults, according to an American Dental Association/Colgate survey.

Your annual dental exam involves an evaluation for tooth decay, and the health of your gums and supporting tissues. Periodontal or gum diseases, including gingivitis and periodontitis, are serious infections that when left untreated can lead to tooth loss.

Gingivitis, the mildest form of gum disease, affects just over half of the U.S. population. Gums that are red, swollen and bleed easily are classic signs of gingivitis. There can be very little to no discomfort. Gingivitis often is caused by inadequate oral hygiene — flossing and brushing — but can be reversed easily by professional treatment and improved homecare.

Oral Cancer: Know the Signs

arly detection of oral cancer through preventative dental care is the key to survival. Whether you believe you have any of the risk factors for getting oral cancer, it is important to always be on the lookout for early signs of the disease, including:

- > Non-healing red or white spots that appear on the gums, cheeks or under the tongue
 - > Swelling of the tongue or throat
 - > A lump in the mouth or neck
- > Pain or difficulty with swallowing or chewing
 - > Numbness in the mouth
- > Vocal hoarseness that lasts for an extended time

- > Tiny marks resembling canker sores that last longer than two weeks
- > Sores that bleed and don't heal (in later stages)

Oral cancer exams are quick and painless. A dentist or dental hygienist can examine your neck, head, mouth, gums, throat and tongue looking for signs. If a dentist finds an unexplained red or white spot, he or she can use the OralCDx BrushTestTM. This procedure spots oral cancer in its earliest stages or when cells appear abnormal but are not yet cancerous. It is used to collect cell samples for further study.

(Source: Delta Dental)

Quiz Answers:

(From Page 3)

- **1. False.** Toothbrushes should be replaced every three to four months. A worn toothbrush will not do as good a job of cleaning your teeth. (When the bristles fan out or if you get a cold, it's time to change.)
- **2. True.** Cigarette smoking is associated with half of all the cases of periodontal disease in the United States.
- **3. True.** Effective whitening agents can cause serious problems in teeth and gums with preexisting damage.
- **4. False.** It is better to drink a can of soda with a meal rather than sip throughout the day because your teeth are exposed to high acid levels for a shorter period of time.

Periodontitis is a very serious form of gum disease that progresses from untreated gingivitis. Bacterial plaque moves below the gumline and releases chemical toxins that destroy the tissue and bone surrounding teeth. The gums become loose and separate from the teeth, causing a pocket to develop, which then harbors more infection. As the disease progresses, destruction occurs to the bone and tissue, leading to further damage, painful infections, loose teeth and eventual tooth loss. In many cases, only mild symptoms of discomfort are noted until more advanced stages of the disease are present.

The damage to both tissue and bone often is impacted by the immune system. As the immune response is activated by foreign bacteria and their by-products, the body's own immune cells, white blood cells, lymphocytes and antibodies destroy host tissues in their attempt to defend the body from these foreign invaders.

Additional factors, such as smoking tobacco and suffering from a systemic disease such as diabetes, can compound the effects of periodontitis.

Diabetes, if not well managed, weakens the body's immune system and can allow more pervasive and damaging periodontal infections to occur. It is important to see your physician and dentist for comprehensive health checkups to prevent this very unpleasant but preventable health problem from occurring.

- **5.** False. The element found in drinking water to protect teeth is fluoride.
- **6. True.** Not only does this help dislodge some of the food stuck to your teeth, it also increases saliva flow to help buffer acids.
- **7. False.** Oral care should begin at birth. A baby's gums should be wiped after every feeding with a washcloth or cotton gauze.
- **8. True.** Cleft lip and palate is the most common birth defect in the United States and may be associated with a lack of folate.
- 9. True. Wearing a mouth guard while playing sports protects your mouth and teeth from accidents that may result in cracked, broken or lost teeth.
- 10. False. Bleeding gums could be a sign of gingivitis or periodontitis, two common forms of periodontal disease.



Oral Conditions

Dry mouth and burning mouth disorder can be troublesome

by Susan Zunt, DDS, MS, Professor and Chair, Oral Pathology, Medicine and Radiology, Indiana University School of Dentistry

Not feeling like smiling, eating or talking due to a less than healthy mouth? You aren't alone. Work with your health care team to diagnose your health issue and put that smile back on your face.

Dry mouth

Your mouth seems dry all the time. You have burning sensations inside your mouth or on your tongue. Your lips are chapped and dry. You may get frequent mouth sores. Eating dry, rough, salty, sweet, acidic, hot or spicy foods is difficult. You keep water with you constantly. You wake up with your tongue stuck to the top of your mouth. Speaking and swallowing are difficult.

You may have dry mouth due to decreased salivary gland function. Having a dry mouth increases the risk of developing dental decay or cavities due to bacterial infection.

Some medications, especially those used for anxiety, depression, hypertension, allergies, colds and pain, can cause dry mouth. People with diabetes, an autoimmune disease, rheumatoid arthritis, and autoimmune thyroiditis also may suffer from this condition. Radiation therapy to the head and neck can destroy salivary glands that lead to dry mouth.

There are simple tests your dentist or physician can perform for an accurate diagnosis and treatment. To alleviate dry mouth:

- > Stay hydrated. Sip eight to 10 8-ounce glasses of water daily.
- > Avoid acidic beverages, including flavored water and colas.
- > Use a fluoride toothpaste. There are special toothpastes for dry mouth.

- > Use over-the-counter products to increase mouth comfort after consulting your dentist.
 - > Chew sugarless gum with Xylitol.
- > Avoid tobacco; it dries the mouth and increases the risk of gum disease and oral cancer.
- > Limit alcohol. It is drying and increases the risk of oral cancer if used with tobacco.
 - > Use a cool air humidifier by your bed.

Burning mouth disorder

Burning mouth disorder is a chronic pain syndrome affecting 2 percent to 3 percent of adults and is more common in women. It typically affects about 14 percent of postmenopausal women.

The causes are unknown, but BMD may follow a viral infection, traumatic injury or stressful event. The burning sensation can be over the entire inside of the mouth or isolated to the top of the tongue, lips and front roof of the mouth.

Symptoms can appear gradually, but about 35 percent of patients report sudden onset. Often the intensity worsens during the day and reaches the maximum in the evening. Many people experience altered or bad taste such as metallic, bitter, intense sweet/sour or are supertasters with increased numbers of taste buds on the front of the tongue. Decreased salivation has been found in 20 percent of patients.

Unfortunately, there is no specific test for BMD. Blood tests often are done, and the dentist or physician makes the diagnosis by ruling out other known causes of oral burning.

There is no one treatment for BMD.

Be sure to see your dentist or physician to accurately identify and treat BMD.

Resources

Academy of General Dentistry provides a dental directory, as well as information on oral health. Call (888) AGD-DENT (243-3368) or log on www.agd.org.

American Dental Association, the world's largest dental association, provides invaluable oral health news and information. Log on www.ada.org.

American Dental Hygienist Association provides prevention education and materials on better oral health, tobacco cessation and school lesson plans. Log on www.adha.org.

American Academy of Periodontology provides information on finding a periodontist in your area, as well as information on periodontal health. Log on www.perio.org.

Connect2Help provides information and referrals for dental care in central Indiana counties. Call 211, (317) 926-4357 or log on www.connect2help.org.

Centers for Disease Control and Prevention provides a variety of oral health information and recommended guidelines. Log on www.cdc.gov/oralhealth.

Delta Dental of Indiana, Michigan and Ohio — with its affiliates in Illinois and Tennessee — make up one of the largest dental plan administrators in the nation. In 2007, the enterprise paid out nearly \$1.8 billion for dental care for more than 7.6 million enrollees. For more information on oral cancer, log on www.deltadentalin.com.

HealthNet Community Health Centers provide health and dental care services at reduced costs. Dental care can be provided at the following centers: Martindale-Brightwood Health and Dental Center, (317) 782-2128; People's Health & Dental Center, (317) 782-2126, and Southeast Health & Dental Center, (317) 782-2126.

Hoosier Healthwise provides low-cost or free health and dental insurance to eligible children and families. Call (800) 889-9949 or log on www.in.gov/fssa/ompp/2848.htm.

Indiana Dental Association provides information on finding a dentist in your area and learning more about basic oral health. Call (317) 634-2610, (800) 562-5646 or log on www.indental.org.

Indiana State Department of Health has an oral health program that is working towards better oral health for all Hoosiers. Call the Indiana State Department of Health Family Helpline at (800) 433-0746 or log on www.in.gov/isdh/18695.htm.

Indiana University School of Dentistry offers adult, pediatric and orthodontic services provided by dental students. Call (317) 274-7957 or log on www.iusd.iupui.edu.

Marion County Health Department provides several dental services, including clinics and a traveling Smile Mobile. Call (317) 221-2329 or log on www.mchd.com/dh.htm.

Simple Steps to Better Dental Health provides information on preventing problems, understanding conditions and exploring treatments. Log on www.simplestepsdental.com.

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